

## CLAIMS:

1. A method of diagnosing tumor in a mammal, comprising detecting the level of expression of a gene encoding a cardiotrophin-1 (CT-1) polypeptide (a) in a test sample of tissue cells obtained from the mammal, and (b) in a control sample of known normal tissue cells of the same cell type, wherein a higher expression level in the test sample indicates the presence of tumor in the mammal from which the test tissue cells were obtained.
2. A method of diagnosing tumor in a mammal, comprising (a) contacting an anti-CT-1 antibody with a test sample of tissue cells obtained from the mammal, and (b) detecting the formation of a complex between the anti-CT-1 antibody and the CT-1 polypeptide in the test sample.
3. The method of claim 2 wherein said test sample is obtained from an individual suspected to have neoplastic cell growth or proliferation.
4. A cancer diagnostic kit, comprising an anti-CT-1 antibody and a carrier in suitable packaging.
5. The kit of claim 4 further comprising instructions for using said antibody to detect the CT-1 polypeptide.
6. A method for inhibiting the growth of tumor cells comprising exposing a cell which overexpresses a CT-1 polypeptide to an effective amount of an agent inhibiting the expression and/or activity of the CT-1 polypeptide.
7. The method of claim 6 wherein said agent is an anti-CT-1 antibody.
8. The method of claim 7 wherein said tumor cells are further exposed to radiation treatment or a cytotoxic or chemotherapeutic agent.
9. An article of manufacture, comprising:  
a container;  
a label on the container; and  
a composition comprising an active agent contained within the container; wherein the composition is effective for inhibiting the growth of tumor cells, the label on the container indicates that the composition can be used for treating conditions characterized by overexpression of a CT-1 polypeptide, and the active agent in the composition is an agent inhibiting the expression and/or activity of the CT-1 polypeptide.
10. The article of manufacture of claim 9 wherein said active agent is an anti-CT-1 antibody.
11. A method for identifying a compound capable of inhibiting the expression or activity of a CT-1 polypeptide, comprising contacting a candidate compound with a CT-1 polypeptide under conditions and for a time sufficient to allow these two components to interact.
12. The method of claim 11 wherein said candidate compound or said CT-1 polypeptide is immobilized on a solid support.
13. The method of claim 12 wherein the non-immobilized component carries a detectable label.
14. An isolated nucleic acid molecule comprising DNA having at least an 80% sequence identity to (a) a DNA molecule encoding a cardiotrophin-1 (CT-1) polypeptide having the sequence of amino acid residues of Figure 1A (SEQ ID NO:3), or (b) the complement of the DNA molecule of (a).

15. The isolated nucleic acid molecule of claim 14 comprising the sequence of Figure 1A and 1B (SEQ ID NO:1).
16. The isolated nucleic acid molecule of claim 14 comprising the sequence of Figure 1A and 1B (SEQ ID NO:2).
17. An isolated nucleic acid molecule encoding a CT-1 polypeptide, comprising DNA hybridizing to the complement of the nucleic acid having the sequence of Figure 1A and 1B (SEQ ID NO:1) or (SEQ ID NO:2).
18. A vector comprising the nucleic acid of claim 14.
19. The vector of Claim 18 operably linked to control sequences recognized by a host cell transformed with the vector.
20. A host cell comprising the vector of Claim 18.
21. The host cell of Claim 20, wherein said cell is a CHO cell.
22. The host cell of Claim 20, wherein said cell is an *E. coli*.
23. The host cell of Claim 20, wherein said cell is a yeast cell.

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